
New Species of *Tibouchina* (Melastomataceae) from Minas Gerais, Brazil

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ABSTRACT. The new species *Tibouchina melanocalyx* R. Romero, P. J. F. Guimarães & Leoni (Melastomataceae) presents a glabrous hypanthium and calyx lobes, is black in dried material, has glabrous filaments and style, and has an ovary with a furrowed apex with five oblong appendages. These characteristics of the hypanthium and ovary are unique within the genus *Tibouchina* Aublet. This species occurs in highland, campos de altitude vegetation from the National Park of Caparaó and State Park of Serra do Brigadeiro, in Minas Gerais, Brazil.

RESUMO. A espécie inédita *Tibouchina melanocalyx* R. Romero, P. J. F. Guimarães & Leoni (Melastomataceae) apresenta hipanto e lacínias do cálice glabras e nigrescentes no material herborizado, filetes e estilete glabros e ovário com ápice fendido com cinco apêndices oblongos. As características do hipanto e do ovário são únicas para o gênero *Tibouchina* Aublet. Esta espécie ocorre em campos de altitude dos Parque Nacional do Caparaó e Parque Estadual da Serra do Brigadeiro, no estado de Minas Gerais, Brazil.

Key words: Brazil, IUCN Red List, Melastomataceae, Minas Gerais, *Tibouchina*.

The National Park of Caparaó, with altitudes from 1000 to 2890 m, is located along the boundary of Minas Gerais and Espírito Santo states in Brazil and presents 10 endemic species of Apocynaceae, Ericaceae, Eriocaulaceae, Orchidaceae, Scrophulariaceae, and Velloziaceae (Leoni & Souza, 1999). The State Park of Serra do Brigadeiro is located in the Zona da Mata, southeast of Minas Gerais. The vegetation of both parks is composed of forests and highlands known as campos de altitude. A new species of *Tibouchina* Aublet was discovered during the system-

atic treatment of Melastomataceae from the National Park of Caparaó (Faria et al., 2006) and is presented here.

Tibouchina melanocalyx R. Romero, P. J. F. Guimarães & Leoni, sp. nov. TYPE: Brazil. Minas Gerais: Parque Estad. da Serra do Brigadeiro, Fervedouro, 7 July 1995, *L. S. Leoni* 2995 (holotype, GFJP; isotypes, HUFU, MO). Figure 1.

Haec species ab omnibus speciebus generis hypanthio oblongo tereti glabro et ovario apice appendicibus oblongis 5 praedito differt.

Shrub, 0.3–1 m tall; stems black, angular, flattened at apex, glabrous or with sparse, strigose trichomes, elongate at the nodes. Petiole 3–15 mm; leaf blade 4–9 × 2–4.5 cm, ovate-oblong, apex acute, margin strigose, base rounded, trichomes strigose, blade adaxially glabrous or with strigose trichomes, abaxially with strigose trichomes under the principal and lateral veins, 5-nerved, prominent veins on the adaxial surface, impressed abaxially. Thyrses terminal, ca. 60 flowers, 20–24 cm; bracteoles 2, 8–15 × 4–9 mm, oblong, flat, both surfaces glabrous, margin ciliate, caducous. Flowers 5-merous, pedicellate, pedicels 3–4 mm; hypanthium 10.5–12 × 4–5 mm, black, oblong, terete, glabrous, calyx persistent, tube ca. 1 mm, calyx lobes 5–5.5 × 2.7–3.3 mm, oblong, apex rounded, frequently retuse or obtuse, margin ciliate, glabrous on both surfaces; petals 13–23 × 10–22 mm, purple, obovate, apex truncate, lightly retuse, glandular-ciliate; stamens 10, isomorphic, unequal size; filaments glabrous, anthers subulate, apex attenuate, ventral inclined pore, ventral biauriculate appendage with 2 apical glands or glabrous, large stamens with

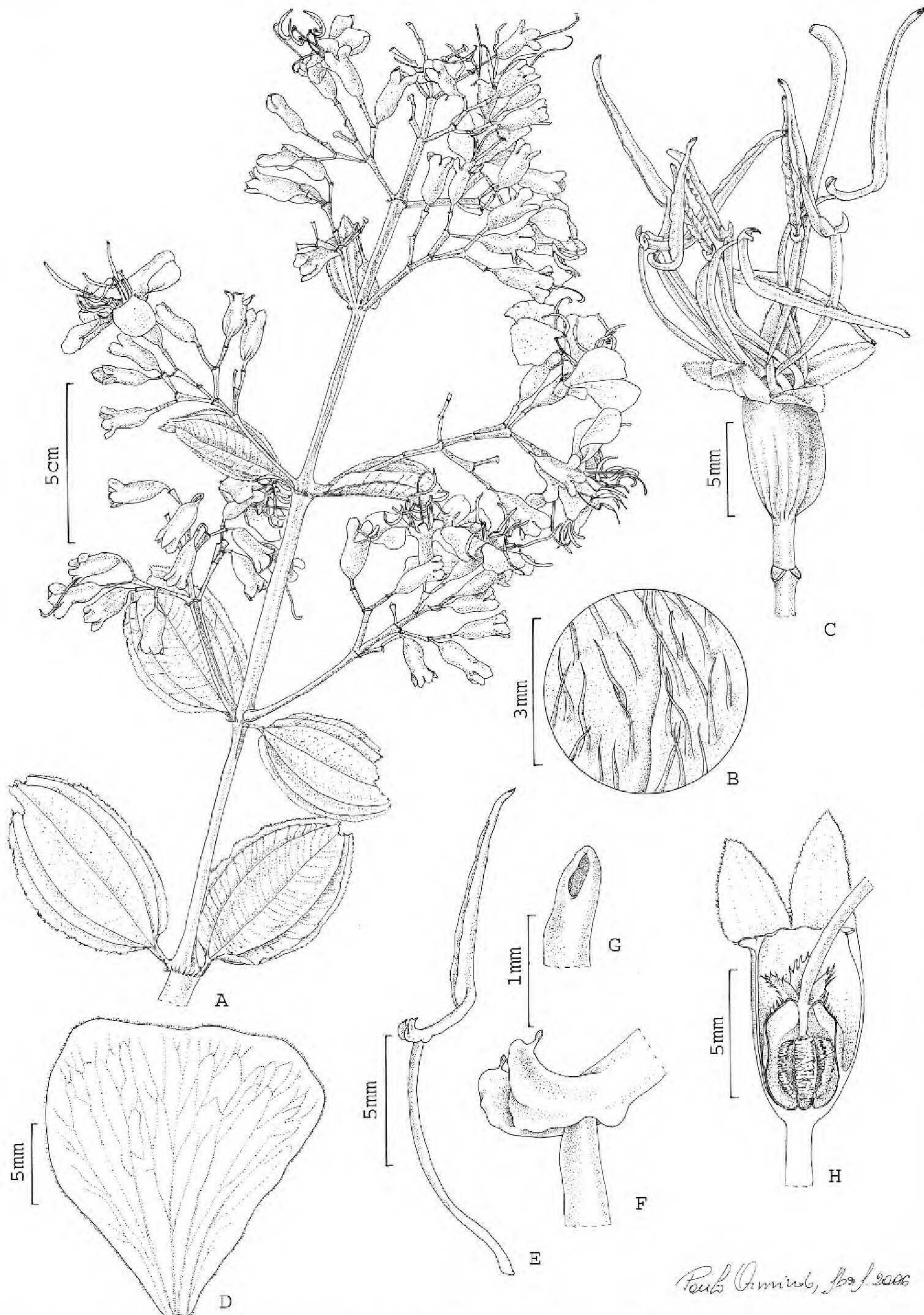


Figure 1. *Tibouchina melanocalyx* R. Romero, P. J. F. Guimarães & Leoni. —A. Habit. —B. Leaf, indument of the abaxial surface. —C. Hypanthium, stamens, and style. —D. Petal. —E. Lateral view of stamen. —F. Detail of the connective. —G. Detail of the anther apex. —H. Longitudinal section of the hypanthium showing the ovary with oblong appendages. Drawn from the paratype *Leoni* 1941 (SP).

filaments 10.5–11.5 mm long, thecae 11–12 mm, connective prolonged 3–4 mm below the thecae, small stamens with filaments 8.5–9.5 mm long, thecae 9–10 mm, connective prolonged 1.5–2 mm, ovary ca. 7.5 × 5 mm, 2/3 adnate to the hypanthium, apex strongly furrowed, with 5 oblong appendages, with long strigose-sericeous and short glandular trichomes, caducous glands, 5-locular; style 5.5–7 mm, filiform, curved in the apex, glabrous, stigma punctiform. Fruit not seen.

Distribution, habitat, and IUCN Red List category. *Tibouchina melanocalyx* is endemic to the State Park of Serra do Brigadeiro and the National Park of Caparaó, Minas Gerais, Brazil. This species occurs in highland, campo de altitude vegetation between 1500 and 2200 m, in stony soil with species of Poaceae and Bromeliaceae. At this time, according to IUCN Red List categories and criteria, the conservation status for *T. melanocalyx* is Data Deficient (DD) because the appropriate data on abundance and/or distribution are lacking for the area (IUCN, 2001).

Phenology. This species flowers from May to August.

Etymology. The specific epithet refers to the characteristic dark color of the calyx lobes and hypanthium in dried material.

Discussion. The new species *Tibouchina melanocalyx* presents a glabrous hypanthium and calyx lobes with caducous bracts, is black in dried material, and has glabrous filaments and style. The ovary has a furrowed apex with five oblong appendages, with both long sericeous and short glandular trichomes and caducous glands. The presence of caducous bracts and glabrous filaments is observed frequently among the species of *Tibouchina* sect. *Diothanteria* Triana, but the characteristics of the hypanthium and ovary in *T. melanocalyx* are unique to the genus. The foliar morphology, considering the texture, indument, and

veins, suggests that this species is more closely related to *T. virgata* (Gardner) Cogniaux, known only from Serra dos Órgãos, Rio de Janeiro, Brazil (Guimarães, 1997). *Tibouchina virgata* belongs to section *Pleroma* D. Don, but it should be emphasized that the sectional limits in *Tibouchina* are tenuous because most sections reflect previously recognized genera and are not monophyletic clades based on morphological characters (Romero & Guimarães, 2005).

Paratypes. BRAZIL. Minas Gerais: Parque Nac. do Caparaó, Vale Encantado, 14 June 1991, G. Hatschbach, M. Hatschbach & J. M. Silva 55491 (C, MBM); Serra da Gramma, Pedra do Pato, 20°44'S, 42°28'W, 17 Aug. 1992, L. S. Leoni 1941 (SP); Alto Caparaó, Parque Nac. do Caparaó, Vale Encantado, 29 May 1999, W. Foster & L. S. Leoni 84 (ESA); córrego José Pedro, 29 May 1999, L. S. Leoni & W. Forster 4190 (GFJP); Vale Encantado, campo de altitude, May 2004, L. S. Leoni & V. A. Tinte 5726 (GFJP).

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